CENTER FOR BEAM PHYSICS SEMINAR

"The Next Twenty Years in Particle Physics"

Hitoshi Murayama LBNL and UCB

Friday December 13, 2002, 10:30 AM Albert Ghiorso Conference Room (71-264), LBNL •••Refreshments served at 10:20 AM •••

Abstract: Particle physics is at a very exciting stage. Dark matter, dark energy, neutrino mass, and weak force all suggest that the TeV is the relevant energy scale of the problem. We are just about to probe this energy scale. The past two years the particle physics community went through the planning process for the next twenty years. The outcome was the realization that there are many deep scientific questions that can be addressed in the near future (this talk was given earlier as a Berkeley Physics Department Colloquium on Nov 4, 2002; see http://hitoshi.berkeley.edu/)

Biographical data and research interests: Hitoshi Murayama obtained his Ph. D. in theoretical physics at the University of Tokyo in 1991 (thesis title "Study of the Symmetry Breaking Physics at JLC"). Following a two-year appointment at Tohoku University, he joined LBNL in 1993, where he has been ever since. He has also been a UCB faculty member since 1995, where he is now a full professor. Hitoshi's research interests include supersymmetry phenomenology, particle cosmology, physics at e+e- linear collider, collider physics, supersymmetric field theories and neutrino physics. He participates in various high-energy physics groups such as the Particle Data Group, the DOE/NSF High Energy Physics Advisory Panel (HEPAP) Subpanel on Long Range Planning for U.S. High Energy Physics, the National Research Council Neutrino Facilities Assessment Committee, and the Fermilab Physics Advisory Committee. He has received several research grants and awards, including a Sloan fellowship (1996-99) and the Nishinomiya Yukawa Commemoration Prize in Theoretical Physics (2002). His website is http://hitoshi.berkeley.edu/.